



OCCUPYING EXISTING BUILDINGS:

Introduction

Every building is unique in its design; therefore, it is not practical to discuss each different code requirement or option when occupying an existing building. However, the following information provides a basic understanding of factors to consider when an existing building undergoes a change in occupancy classification, changes in use, or modifications.

Occupancy Classifications

The NC Building Code has 10 different occupancy groups (specific group classifications are in parenthesis).

- Assembly (A-1, A-2, A-3, A-4, A-5)
- Business
- Educational
- Factory-Industrial (F-1, F-2)
- Hazardous (H-1, H-2, H-3, H-4)
- Institutional (I-1, I-2, I-3, I-4)
- Mercantile
- Residential (R-1, R-2, R-3, R-4)
- Storage (S-1, S-2)
- Utility

All structures are required to be classified in one or more occupancy groups (classification) according to the structure's purpose and function. By organizing occupancies with similar fire hazard and life-safety properties into groups, the code differentiates occupancies so various fire protection and life-safety requirements can be rationally organized and applied. Each specific group has an individual classification. Each represents a different characteristic and level of fire hazard that requires special code provisions to lessen the associated risk.

There are some specific group classifications that are very closely related to other specific group classifications and, therefore, are collectively referred to as a single group. However, there may be some differences in code requirements.

- Example: Both a restaurant (A-2) and a church (A-3) are assembly occupancies (Group A); however, they have different specific group classifications. Although they may have the same requirements for egress and door hardware, they have different requirements for an automatic sprinkler system and interior finishes.

Incidental and Accessory Use Areas

A building may be used for more than one purpose, and these areas are referred to as incidental use areas and accessory use areas. Depending upon the square footage and group classification of these areas, they may be required to be separated from the other portions of the building by a fire resistive rated separation or barrier or the area or the building may have to be protected by a sprinkler system.

Occupying an Existing Building

No change in occupancy and no change in use.

Example: Mercantile to Mercantile, Business to Business, Assembly (A-2) to Assembly (A-2)

- There should be very few code issues to address unless renovation work creates problems with egress or existing building service systems.
- How much has to be done is normally related to "maintenance" issues. How well the building has been maintained will directly relate to how much work has to be done. The following are some areas that have to be evaluated.

- a. Structural strength and stability, adequate lighting, leaks in roof, egress clearly identified, exit door hardware, etc.
- b. Maintenance of building service equipment such as electrical, gas, mechanical and plumbing systems, and fire protection equipment.

No change in occupancy but change in use.

Example: Storage to Storage – S-2 (low hazard) to S-1 (moderate hazard)

Although maintenance issues with the building are still the same, other concerns must be considered. Even though there is not a change in occupancy classification (Storage to Storage), the change in specific group classification (S-2 to S-1) must be taken into consideration because of code requirements that may apply to one specific group classification and not the other. Examples are the following:

- Staff will evaluate the product to be stored and determine if exempt amounts of a hazardous chemical would be exceeded. If exempt amounts are exceeded, other code requirements will need to be applied.
- Is the storage arrangement the same? High-piled storage may become an issue if the previous method of storage was not considered high-piled storage.
- If the building is protected by an automatic sprinkler system, an evaluation of the system must be conducted to determine if it can adequately protect the “new” product that is being stored. A sprinkler system designed to protect a Class I through Class III commodity may not protect Class IV Commodities or Group A plastic products.
- If the S-1 is a repair garage then the ventilation requirements for a repair garage must be evaluated. Ventilation requirements for a repair garage (flammable/combustible vapors) are more stringent than for passive storage of a commodity.

Change in occupancy.

When a change in occupancy classification occurs, there are three methods that can be utilized for the change.

- Comply with the current codes.
- After a building has been occupied for at least 12 months, the following can be utilized.
 - NC Rehabilitation Code
 - Chapter 34 of the current NC Building Code

Current Codes

One disadvantage of applying the current building codes to an existing building is that no consideration is given to the fact that the building met the code at the time it was constructed. However, one-story buildings and moving from a higher hazard to a lower hazard are generally not a problem. The following list is from the NC Rehabilitation Code and shows the relative hazard levels of the various occupancies.

Relative Hazard Levels

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|------------------------------|---|
| 1. Highest Hazard Use Groups | H-1, H-2, H-3 |
| 2. | A-1, A-2, H-4, F-1, I-3, M, S-1 |
| 3. | A-3, A-5, B, F-2, I-2, R-1, S-2 |
| 4. | A-4, E, I-1, R-2 (more than two stories in height or more than four dwelling units) |
| 5. Lowest Hazard Use Groups | R-3, R-4, U, R-2 (two stories or fewer in height and four dwelling units or less) |

NC Rehabilitation Code

One of the advantages of using the NC Rehabilitation Code is it takes into consideration that an existing building complied with the various codes for that occupancy classification when it was originally built or during its last approved occupancy classification. Moving from higher hazard occupancies to lower hazard occupancy is usually an easier conversion using the NC Rehab Code versus the other two methods.

One of the disadvantages is that you are not allowed to remove an automatic sprinkler system, standpipe system, or fire alarm system; and if one of them is out of service, they have to be repaired or replaced and able to properly protect the occupancy.

- Example 1: The existing building has an automatic sprinkler system. If the design professional were to apply the current building codes, the sprinkler system would not be required and could be removed. However, if the design professional uses the NC Rehabilitation Code, the existing sprinkler system would have to remain.

Another disadvantage is when the work to be done is defined as *reconstruction*. If the work area exceeds the allowable square footage, then a lot of the “current” code requirements become applicable as well as the NC Rehabilitation Code’s supplemental requirements.

Chapter 34 NC Building Code

One of the advantages of Chapter 34 is that it allows for a controlled departure from full compliance with the technical codes without compromising the minimum standards for fire protection and life-safety features of a rehabilitated building.

In most cases there are more advantages than disadvantages when applying Chapter 34 to a one-story building that does not exceed the allowable area and/or number of stories. Chapter 34 is based on an evaluation of the building components and systems. As long as the design professional can “score” the minimum number of points required in the Mandatory Safety Score, the designer is allowed a lot of discretion.

Larger buildings with more than one story can be difficult to score due to the complexity of the evaluation. Vertical openings, egress, and separation requirements are some of the more challenging building components for the design professional to overcome when trying to score the minimum number of points needed for the Mandatory Safety Score.

Accessibility Code

Any change of occupancy classification (Business to Mercantile, Storage to Business, Factory Industrial to Storage, etc.) requires that the existing building complies with the current edition of the NC State Accessibility Code. At a minimum this will include an accessible path of travel from the handicap parking space **to and through** the main entrance.

In some cases when interior modifications to the building takes place, additional handicap requirements become necessary regardless of whether a change of occupancy occurs. This happens when there is an alteration in primary function. Example: A renovation to the teller area of a bank is considered an alteration in primary function; whereas, a renovation to the break room of the same bank is not.

Compliance with State and Federal regulations that govern accessibility requirements in buildings are one of many code requirements that must be taken into consideration when a change in occupancy and/or alterations to the primary function of an existing occupancy occurs.

At this time, no change in occupancy **and** no alteration in primary function is the only exemption from the NC State Accessibility Code. Federal Accessibility (ADA) requirements still applies but are not locally (state level) enforced.

There are some current discussions about NC adopting ANSI A117 Standards to replace the NC State Accessibility Code. The adoption of this standard would provide the design community more uniformity throughout the country but will not negate any Federal ADA requirements.

Historic Buildings

The NC Building Code, NC Rehabilitation Code, and NC Accessibility Code contain provisions for qualified historic buildings that minimize the impact of certain requirements that would threaten or destroy the historic significance of the building or facility. The language used in each of the three NC Codes that define the criteria for a building to qualify as a historic building varies. However, in most cases one of the following criteria would apply:

1. Listed on the North Carolina or National Registers of Historic Places either individually or as a contributing building to a historic district;
2. Issued a Determination of Eligibility by the Keeper of the National Register of Historic Places;
3. Identified as a contributing building to Local Historic Districts which have been Certified by the Keeper of the National Register of the National Register as substantially meeting the National Register Criteria; or
4. Buildings with a State Historic Preservation Officer Opinion or Certification that the property is eligible to be listed on the National Register of Historic Places either individually or as a contributing building to a historic district.

Conclusion

This document is meant to give a broad synopsis of some of the issues that may arise when preparing to occupy an existing building. For more information about building and fire code issues please contact the City of Hickory Fire Prevention Bureau at (828) 323-7522 or Catawba County Building Services at (828) 465-8399. If you have questions about whether a use is permitted in a zoning district or other zoning requirements related to redevelopment of an existing building, please contact the City of Hickory Department of Planning and Development at (828) 323-7422.

For information on the process, required applications, or scheduling pre-application meetings with applicable departments, please contact the Development Assistance Center (DAC) at (828) 323-7410.